PRELIMINARY NOTE ON A NEW DISEASE OF THE CULTIVATED VETCH

ABOUT the middle of last July the senior author discovered a fungus disease of the cultivated vetch which does not seem to have been reported before. He first observed it on the stems and pods from a small patch of the vetch on the horticultural grounds of Cornell University. It was later brought into the laboratory from two fields of the cultivated vetch on the university farm. The disease appears to be quite abundant and is often associated with an *Ascochyta,* especially on the stems. Here the two fungi are often mixed together and it is thus possible for one not familiar with the new one to confuse its spores with those of the *Ascochyta.* On the pods it often occurs quite pure, and here it is easily seen with the unaided eye to be quite distinct from the disease caused by the *Ascochyta.* It is, however, frequently mixed even on the pods with the *Ascochyta,* but the spots are here so characteristic that there is no trouble in distinguishing it.

The gross appearance of the spots and spore pits on the pods is very striking. The spots are elongated, forming either long narrow or elliptical spots, sometimes with a dull purple border. The spots on the pods are oblique, probably due to the oblique fibrous structure of the pods. The middle line of the spot is white from the numerous spores formed on the basidia and which later ooze out in masses. When in mass the spores have a pale pink or flesh color, and a hasty preparation suggests the genus *Glœosporium.* When the spores are washed by the rains they give a whitish appearance to the entire spot because of the thinness of the layer.

The fruiting part of the fungus is beneath the epidermis, the latter being ruptured in the form of a slit through which the spores escape. The mycelium becomes brown and then black, and the epidermis is also blackened by the action of the fungus. In age then the spots are black oblique lines as seen on the pods, and many of them may be sterile through failure of the fungus to fruit.

The spots caused by the *Ascochyta* are nearly or quite circular, grayish in color, with a dull purple border, and the grayish center punctate with the minute brownish pycnidia.

Besides the interesting character of the spots the structure of the fungus causing this new disease of the vetch is even more interesting. In structure it resembles that of a species of *Corticium.* The basidia form a definite hymenium which arises from the pseudoparenchymatous subhymenium of angular cells, two to three cell layers in thickness. The nourishing mycelium extends out into the surrounding tissue of the host. The basidia bear four to eight spores, which are sessile and usually produced in a whorl or crown at the end. The spores are oblong to subelliptical, straight or curved, continuous, hyaline, granular, and measure 12–20 x 3–3.5 μ. As the spores fall away from the basidia others are probably produced (in culture they are). Conidia similar to the basidiospores are produced on slender conidiophores. These are intermingled with the basidia and this character recalls that of the genus *Exobasidium.* The spores also bud in yeast-like fashion from one or both ends, rarely from the side, and the sporidia thus produced are similar to the spores. In this way a great mass of spores is produced from the spore pit. The fungus occurs on the leaves and flower bracts also. It has been obtained in pure culture by several different methods of separation. It grows slowly, but ultimately produces numerous black stromatic bodies and numerous spores, which are pink in mass.

The fungus appears to be the type of a new genus for which the name *Protocoronospora* is proposed, and a provisional diagnosis is given as follows:

Protocoronospora Atkinson and Edgerton new genus.

Stroma pseudoparenchymatous, two to three cell layers in thickness, formed by the compact branching of the mycelium, the ultimate exterior branches producing the basidia which form a hymenium. Spores sessile, hyaline, colorless, continuous, smooth, several (usually four to eight) on a basidium. Spores budding and forming sporidia similar in form. Conidia also similar in form on slender short conidiophores intermingled with the basidia.

P. nigricans Atkinson and Edgerton n. sp.

Forming narrow elongated spots on the pods, stems, leaves and bracts, spots oblique on the pods and from 2–5 mm. x 1–2 mm. Spots at first white or with a purple border, later black. Stroma of pseudoparenchymatous cells 6–9 μ in diameter, two to three cell layers in thickness. Basidia clavate to subcylindrical, 20–30 x 6–8 μ, 4–8-spored. Spores sessile, and basidia continuing to form new spores, at least in artificial culture. Spores pale pink in mass, oblong to subelliptical, hyaline, continuous, smooth, granular, straight or curved, 12–20 x 3–3.5 μ, usually becoming once septate on germination. Mycelium from the stroma penetrating the adjacent tissues. Parasitic on pods, stems, leaves and bracts of *Vicia sativa*.

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MARINE BIOLOGICAL ASSOCIATION OF SAN DIEGO[1]

General Statement.—The La Jolla park transfer matter, the sewer bond election and the building of the new boat have been the events during the past year of foremost moment to the general association. The story of these is so well known that for the purpose of this report they can be quickly despatched.

The legislation requisite in the opinion of the attorney general of the state, to enable the city to transfer its trusteeship of the park at La Jolla to the board of regents of the University of California, was secured without a lisp of opposition, so far as we know, early in the last session of the state legislature. Shortly after the enabling act became law the city council passed an ordinance providing for the transfer, under certain conditions, of the title to the park to the regents of the university, the conditions of the transfer having been first submitted to and approved by the attorney of the board of regents to insure that the trust might be accepted legally and consistently with the university's rules and policies.

[1] Extracts from the annual report, presented July 20, 1907, by Wm. E. Ritter, scientific director.

Meanwhile, by reason of enlarging ideas and plans in the minds of the station's foremost supporters, Miss Ellen B. Scripps and Mr. E. W. Scripps, the inadequacy in size of the little park for the future developments contemplated, became more and more apparent. The final step in the transaction between the city and the board of regents was consequently deferred pending another effort to secure a site of more ample size somewhere in the immediate vicinity of La Jolla, which vicinity all expert judgment appealed to unites in declaring must not be given up under any circumstances. The only piece of ground even approaching the desired size, and at the same time available, was found to be a pueblo lot of about 160 acres owned by the city. It is a great satisfaction to be able to report that the efforts to secure this land have advanced to such a point as to justify the expectation that within a month the association will be the possessor of a station site large enough to admit of the developments looked forward to.

There remains in this connection only the pleasant duty of acknowledging the association's obligations to the various agencies that have contributed to securing for the association what it has asked. It is difficult to imagine how any community could take up a purely non-commercial project like this more intelligently and heartily, and promote it more liberally, than the San Diego community has this biological one. Individual citizens, business houses and corporations, city officials, representatives of the city and county in the state legislature—everybody, in short, with whom we have come into relations has treated us even better than we expected to be treated, and that is saying a good deal.

Planning for the New Laboratory.—The plan suggested at the last annual meeting, held in September, 1906, that the first section of the new laboratory building be hurried to readiness for dedication in early September, 1907, came to the end of many another fond hope. Unquestionably real good would have resulted to the station could the scheme have been carried out. But unquestionably also the conditions that have prevented its realiza-